



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,830	06/26/2003	Himansu M. Gajiwala	2507-5300.1US(21870-US-04	7592
60794 7590 12/21/2007 TRASKBRITT, P.C./ ALLIANT TECH SYSTEMS P.O. BOX 2550 SALT LAKE CITY, UT 84110			EXAMINER RONESI, VICKEY M	
			ART UNIT 1796	PAPER NUMBER
			NOTIFICATION DATE 12/21/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTOMail@traskbritt.com

**Office Action Summary**

Application No.

10/608,830

Applicant(s)

GAJIWALA, HIMANSU M.

Examiner

Vickey Ronesi

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7, 14 and 20-24 is/are pending in the application.
- 4a) Of the above claim(s) 21 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7, 14, 20, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/29/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/29/2007 has been entered.
2. The outstanding 35 USC 112, 2<sup>nd</sup> paragraph rejection and 35 USC 103 rejections are withdrawn in light of applicant's amendment filed on 10/29/2007.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

### ***Claim Objections***

4. Claims 23 and 24 are objected to because there is no basis for the amount of carbon black in parts by weight. Specifically, according to Table 1 there is support for 1.00 parts by weight N-330(R) per 185.47 parts by weight of the total composition and Table 8. Such should be recited in the claim.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. Claims 23 and 24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The rejection is adequately set forth in paragraph 5 of Office action mailed on 8/28/2007 and is incorporated here by reference.

***Claim Rejections - 35 USC § 103***

6. Claims 7, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herring (US 4,878,431) in view of Whelan (US 4,246,359).

Herring discloses elastomeric insulating materials for rocket motors (col. 2, lines 66-68; col. 7, lines 20-46) comprising crosslinkable elastomeric polymers such as EPDM (col. 3, lines 51-61); polyaramide pulp, i.e., polymeric organic filler (col. 3, lines 1-18); organic and inorganic flame retardants (col. 4, lines 41-55); other additive such as plasticizers, tackifier (col. 5, lines 42-51); and curatives such as accelerators and activators (Table A bridging cols. 5 and 6). See Tables C and D and Table 1, column A.

Herring teaches the use of flame retardant additives such as chlorinated organic compounds with antimony oxide or hydrated alumina (col. 4, lines 41-55), however, it does not teach the use of a polymeric organic compound such as polyvinyl chloride. Although Herring exemplifies the use of a chlorinated hydrocarbon as the organic compound, note that it does not restrict the use of other chlorinated organic compounds.

Whelan discloses a flame retardant for hydrocarbon diene rubbers comprising a synergistic combination of a halogen containing organic compound such as polyvinyl chloride, alumina trihydrate, and an iron oxide (col. 1, line 66 to col. 2, line 6). Whelan teaches that the halogen-containing organic compound may be non-polymeric or polymeric, including chlorine-containing polymers, e.g., polyvinyl chloride (col. 3, line 19-25) and that the selection of the

appropriate halogen containing organic compound should be consistent with the target physical properties of the finished composition (col. 3, lines 25-33).

Therefore, absent a showing of surprising and unexpected results, it is the examiner's position that it would have been obvious to one of ordinary skill in the art to utilize an appropriate chlorinated compound in Herring, including those polymeric organic compounds within the scope of the present claims, and thereby arrive at the presently cited claims. Should applicant argue criticality of a polymeric organic compound in the inventive composition, it will be noted that applicant's comparative data provides no probative value to support to such an assertion.

7. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herring (US 4,878,431) in view of Whelan (US 4,246,359) and further in view of Graham et al (US 5,821,284).

The discussion with respect to Herring and Whelan et al in paragraph 6 above is incorporated here by reference.

Herring discloses the use of hydrated silica as a filler in amounts of 10-30 wt % (col. 4, lines 34-40; col. 5, line 60; col. 6, line 22), however, it does not disclose carbon black.

Graham et al discloses an insulation material for rocket motors comprising EPDM and teaches that 18-20 wt % hydrated silica or ½ wt % carbon black is used as a filler (col. 8, lines 3-4). Note in Table 1, the examples contain 1 parts by weight carbon black N990.

Given that Herring teaches the use of hydrated silica and further given that Graham et al teaches that the use of hydrated silica and carbon black are used interchangeably in insulation

material for rocket motors, it would have been obvious to one of ordinary skill in the art to substitute silica for carbon black in the composition of Herring. Case law holds that the mere substitution of an equivalent (something equal in value or meaning, as taught by analogous prior art) is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable. See *In re Ruff* 118 USPQ 343 (CCPA 1958).

### ***Response to Arguments***

8. Applicant's arguments filed 10/29/2007 have been fully considered but they are not persuasive. Specifically, applicant argues that the use of generic term "carbon black" is not new matter given that the examples contain N-330®, a type of carbon black.

In response, the use of generic term "carbon black" is new matter because the specification only provides support for one type of carbon black. In the specification as originally filed, the only reference to carbon black N-330® is in Tables 1 and 8 on pages 10 and 19, respectively. This is insufficient to support claim language with generic carbon black (which includes any type of carbon black such as acetylene, channel, and furnace). While the ASTN number N-330 is synonymous with the term "carbon black" according to the document cited on IDS dated 10/29/2007, this is insufficient to establish support for "carbon black" because N-330® is only a type of carbon black.

9. Applicant's arguments with respect to Trask have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made above.

*Conclusion*

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/16/2007  
Vickey Ronesi



/Vasu Jagannathan/  
Supervisory Patent Examiner  
Technology Center 1700